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ABSTRACT

This paper proposes an evaluation design for Mercer County, West Virginia's state funded early childhood education program, which was initiated to replace independent kindergarten programs. An introductory discussion lists the broad goals of the program, three data collection time schedules, program variables that define the model of the program, and instruments available for measuring these defining variables to determine the exactness of fit of the program to its model. The evaluation design is described in terms of (1) program goals and objectives involving the students, faculty, learning materials, and parental involvement; (2) data collection methods; (3) criteria for judging the program; and (4) decisions to be reached as a result of the evaluation. A conclusion lists the goals of the evaluation program. (SB)

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## AN EVALUATION DESIGN FOR THE MERCER COUNTY EARLY CHILDHOOD EDUCATION PROGRAM.

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In 1971 the West Virginia Legislature passed a bill to establish and fund a statewide Early Childhood Education Program (ECEP). One of the objectives of the program was that of replacing the independent kindergarten programs.

During the 1971-72 school year Mercer County established 12 Early Childhood Education Centers (in existing elementary school buildings) which accommodated 474 children who were five years of age. As a rule, children enter the first grade in West Virginia's public schools when they are six years old. Parents were to send their children to the centers on a voluntary basis; i.e., the statewide ECEP was not compulsory. The children were to attend a one-half day session each day of a five-day week.

For the 1972-73 school year the student enrollment grew to 829; while in 1975-76 over 1,000 students were participating in the ECEP program with more than 20 centers in existence. Parental involvement along with program orientation and classroom activity are important components of the program.

Statement of Purpose. The purpose of this paper was to present an evaluation design for assessing the Mercer County's ECEP. Due to the newness of the program and to the neglect on the part of the State Department of Education to provide sufficient guidelines for evaluation, Mercer County has not begun to utilize any formal type of evaluation toward determining whether or not what is expected to happen in its ECEP has happened or is happening. Thus, an

intent of this paper was to provide a general framework for evaluation of the ECEP which accommodates all empirical questions regarding the effectiveness of the program designed to accomplish specific objectives.

Goals of the Program. Briefly listed below are the broad goals of the program:

1. To develop the child's positive self concept as demonstrated by his social and emotional reactions to situations.
  2. To increase his world of people and experiences.
  3. To develop his emotional stability.
  4. To enhance his growth in self-reliance and self-direction.
  5. To assist him in understanding and appreciating our democratic way of life.
  6. To develop his skills and competencies in communication and social relationships.
  7. To help him think logically as he solves problems related to his experiences.
  8. To increase his competency and skill in physical coordination.
  9. To develop his appreciation for the aesthetic.
- Collection of Data. The time schedule for collecting data is determined, in part, by the purpose of the evaluation. In general, one of the following three procedures can be used to describe any given evaluation data collection time schedule as may be applied to ECEP:
1. Data collected at one point in time. This schedule allows a comparison of the evaluation model expectation and the program at a specified point in time.

2. Data collected at two points in time, as exemplified by the classical pre- and post-test schedule. This schedule allows an analysis of change and a comparison of the observed change and the expected change; as defined by the model.

3. Longitudinal evaluations, generally, collect data at critical points over a long period of time (i.e., more than a year). This schedule allows an analysis of change, as in 2 above, but with a greater degree of sophistication.

Criteria and Instrumentation. Evaluation, even the most casual, matches observation to a model and makes a judgment regarding the exactness of fit between the two. The model may be clearly defined or it may be loosely defined and, in fact, take on a definition as a result of the evaluation process (Provus, 1971). In either case, it is necessary to decide what program variables are to be used to describe and define the model and the program. These variables or objectives set the criteria which may be used in the evaluation of the ECEP. The following are examples of variables which may be used to describe models and programs:

1. Expected outcomes in terms of children's behavior change or learning and development, as indicated in program objectives,
2. Implementation of program procedures, including:
  - A. Staff behaviors (teachers, aides, etc.)
  - B. Materials and equipment available and ways utilized.
  - C. Nature and arrangements of physical space and plant.
3. Extent and quality of parent and community involvement,

The ECEP evaluation may use many types of instruments to collect data. Instru-

ments should be appropriately related to the variables (i.e., criteria) which define the model and ECEP. The ECEP evaluation may select instruments of the following general types:

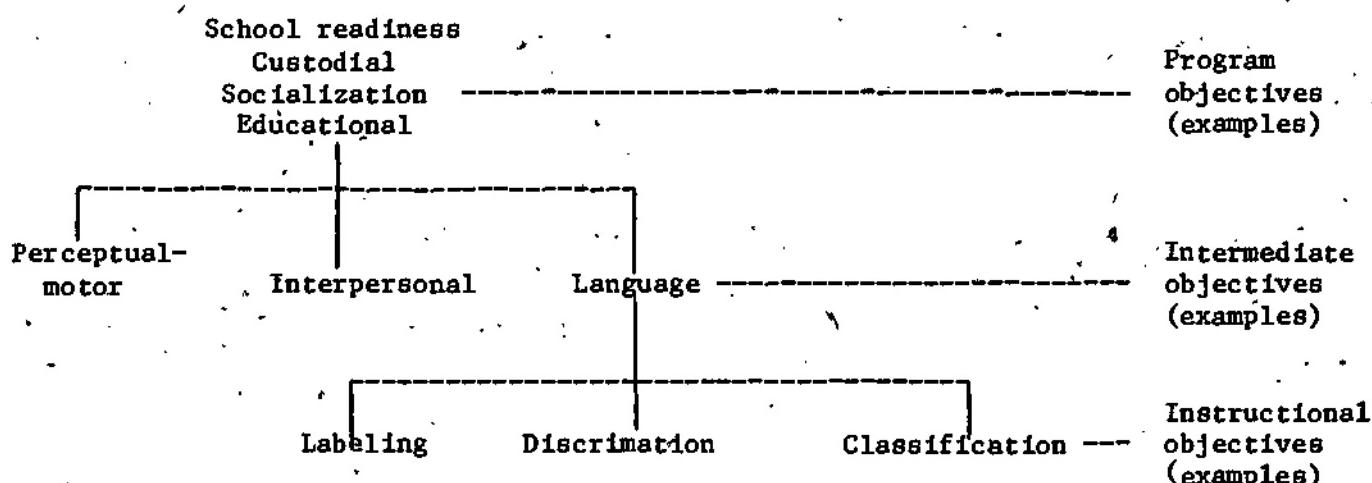
1. Instruments for use in determining the progress of the children (cognitive, affective, and perceptual-motor domains):
  - A. Standardized tests (group or individual) including achievement, developmental, intelligence, and readiness tests.
  - B. Teacher constructed tests.
  - C. Observations by staff, parents, children, specialists and others.
  - D. Interviews and questionnaires (including self-reporting questionnaires) completed by staff, children, parents, and specialists.
  - E. Children's products.
2. Instruments for use in determining the effectiveness of the learning environment.
  - A. Observation of organization of the physical plant and space.
  - B. Observations and questionnaires regarding the use of materials and equipment.
3. Instruments for use in determining the effectiveness of staff behavior.
  - A. Observations.
  - B. Interviews.
  - C. Questionnaires.
  - D. Rating scales.
4. Instruments for use in determining the quantity and quality of parent involvement.

- A. Interviews.
- B. Questionnaires.
- C. Observations.

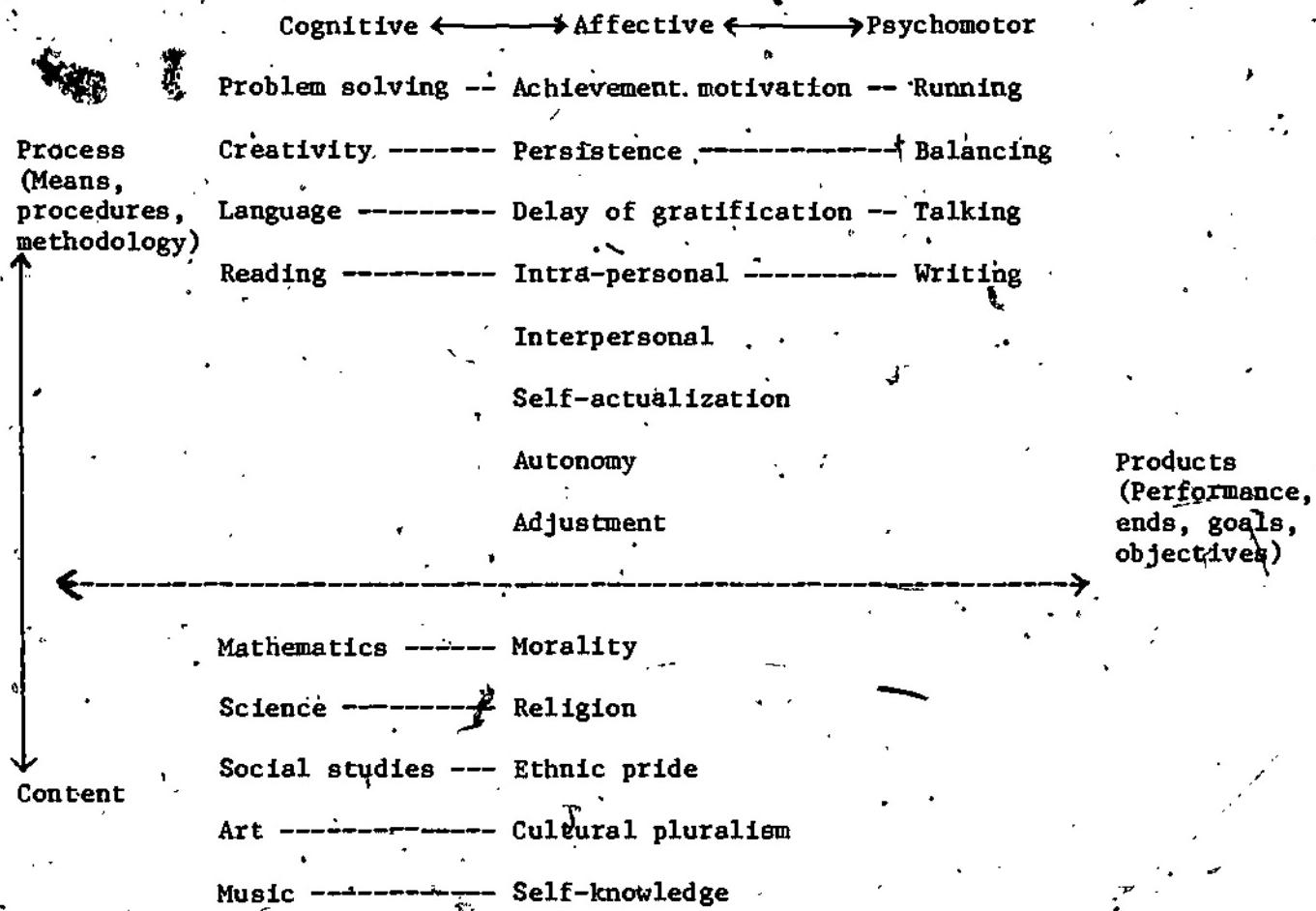
5. Instruments for use in determining the quantity and quality of community involvement.

- A. Interviews.
- B. Questionnaires.
- C. Observations.

Analysis of ECEP Objectives. Prior to going into the specifics of an operational model for ECEP evaluation, the program objectives should be explicated. Following are two illustrations which tend to lend an understanding to the objectives of early childhood education:



(Analysis of objectives of individual programs)



(Analysis of intermediate objectives -- representative)

Generating Alternatives. Stufflebeam (1971) notes that alternatives may be defined in two ways, either explicitly or implicitly, by stating a rule which could be used to generate all possible relevant alternatives. Decision makers must exercise judgments in determining how many alternatives should be generated for consideration and what level of resources should be expended in generating them.

Decision-making. Decision-making, according to Stufflebeam, includes four stages: 1.) Becoming aware that a decision is needed, 2.) Designing the situation, 3.) Choosing among alternatives, and 4.) Acting upon the chosen alternative.

The decision-making process must be kept in mind throughout the evaluation of the ECEP. Planning decisions should be viewed as occurring in general settings, while structuring, implementing, and recycling decisions should be viewed as occurring in specific homeostatic, incremental, or neomobilistic settings.

An ECEP Evaluation Model. Following on page 8 is a model which illustrates the chief components needed for evaluating the ECEP. This writer does not purport that the model is inclusive. Other areas of the ECEP, e.g., physical space utilization, could be included in the model. However, the model does include the essential components which are needed for an empirical evaluation. Dependent upon the nature of the educational program being evaluated, the components vary from one evaluation to another.

It should be noted that the evaluation of the ECEP has to be an ongoing process. It will be more formative than summative evaluation. Nevertheless, since no formal evaluation has been done thus far with the ECEP, summative results for the 1971-72 and 1972-73 school years will represent a starting point for the evaluation procedures. It cannot be over emphasized that decision-making has to be taken into serious consideration at the beginning of the evaluative process.

AN ECEP EVALUATION MODEL

|                      | GOALS                           | DATA COLLECTION                                    | CRITERIA                                                                 | ALTERNATIVE                                                             | DECISION                                                           |
|----------------------|---------------------------------|----------------------------------------------------|--------------------------------------------------------------------------|-------------------------------------------------------------------------|--------------------------------------------------------------------|
| Student              | Affective                       | Classroom Behavior Inventory (CBI)                 | .01 level of significance on most of 12 subscales. Pre-post test design. | 1. Correlate with other scores (cognitive).<br>2. Eliminate test items. | 1. Use in future measurement.<br>2. Discard.                       |
|                      | Cognitive                       | Illinois Test of Psycholinguistic Abilities (ITPA) | Score of 60 months or more.<br>Pre-post test design.                     | 1. Comparison between subtests.<br>2. Give another test.                | 1. Formative.<br>Summative.<br>2. Favorable.<br>Unfavorable.       |
|                      | Psychomotor                     | Gesell Developmental Designs (GDD)                 | National average for 5-year old. Pre-post test design.                   | 1. More teaching in psychomotor.<br>2. Unsupervised physiological play. | 1. Formative.<br>2. Summative.<br>1. Favorable.<br>2. Unfavorable. |
| Learning Materials   | Effective Use                   | Observation Questionnaire                          | 75% constructive utilization                                             | 1. Eliminate.<br>2. Combine material.<br>3. Revise material.            | 1. Favorable.<br>2. Unfavorable.<br>1. Formative.<br>2. Summative. |
| Faculty              | Excellent teaching performance  | Observation Questionnaire Rating scale             | 85% expectation                                                          | 1. Alter approach.<br>2. Revise curriculum.                             | 1. Retain.<br>2. Replace.                                          |
| Parental Involvement | Participation and understanding | Observation Questionnaire                          | 70% of parents                                                           | 1. Increase publicity.<br>2. Program orientation.                       | 1. Favorable.<br>2. Unfavorable.                                   |

Political Implications. Due to the fact that the ECEP is a state-funded project, it is inevitable that certain political pressures from the local school board and State Department of Education will be inferred upon the evaluators of the program. Many times certain administrators want a "rosy" presentation of their programs rather than an objective, real assessment. Thus, an outside consultant (evaluator) should play the role of conducting the evaluation or evaluating the evaluation.

Conclusion. Teachers responsible for the learning experiences of children will evaluate each child in terms of his progress toward specific objectives. Students, too, will make judgments about what they have learned and the extent to which they have accomplished that which they expect to attain. Parents will evaluate the outcomes of the program in terms of what they think their children are or are not achieving.

To perform the necessary functions, the evaluation program at all levels of the ECEP must:

1. Be consistent with the objectives of the program.
2. Be as comprehensive in scope as are the objectives of the program.
3. Be sufficiently diagnostic to distinguish various levels of performance or mastery attained and describe the strengths and weaknesses in the processes as well as in the product of the performance.
4. Have validity, the capacity of the evidence to describe what it was designed to describe. (Validity must take precedence over economy of time, ease of administration, etc.)
5. Organize the evidence secured from different instruments and on different

aspects of the evaluation program into a total pattern -- a meaningful portrait of individuals and groups, separate entities and coordinated wholes.

6. Be a continuous process and an integral part of the development and improvement of the ECEP.

Evaluation at any level and by any category of people is thus conceived as an intricate and complex beginning with the formulation of objectives.

It involves decisions about the means of securing evidence on the achievement of these objectives, the process of interpretation of meanings of the evidence and judgments about the strengths and weaknesses of participants and participation in the program components. The end result is decisions about the needed changes and improvements in the program.

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